



PART NO. M9746500

	Diameters (In)	
1) Component 1	50 X 1 PAIR	
a) Conductor	16 (7/.0192) AWG Bare Copper	0.058
b) Insulation	0.016" Wall, Nom. PVC	0.090
(1) Print	ALPHA NUMERIC NUMBERS - WHITE CONDUCTOR ONLY (ONE-1) ALTERNATE INVERTED 2"SPACING(CTR. TO CTR.)	
(2) Color Code	Alpha Wire Color Code BW	

Pair	Color	Pair	Color	Pair	Color
1	BLACK-WHITE#1	18	BLACK-WHITE#18	35	BLACK-WHITE#35
2	BLACK-WHITE#2	19	BLACK-WHITE#19	36	BLACK-WHITE#36
3	BLACK-WHITE#3	20	BLACK-WHITE#20	37	BLACK-WHITE#37
4	BLACK-WHITE#4	21	BLACK-WHITE#21	38	BLACK-WHITE#38
5	BLACK-WHITE#5	22	BLACK-WHITE#22	39	BLACK-WHITE#39
6	BLACK-WHITE#6	23	BLACK-WHITE#23	40	BLACK-WHITE#40
7	BLACK-WHITE#7	24	BLACK-WHITE#24	41	BLACK-WHITE#41
8	BLACK-WHITE#8	25	BLACK-WHITE#25	42	BLACK-WHITE#42
9	BLACK-WHITE#9	26	BLACK-WHITE#26	43	BLACK-WHITE#43
10	BLACK-WHITE#10	27	BLACK-WHITE#27	44	BLACK-WHITE#44
11	BLACK-WHITE#11	28	BLACK-WHITE#28	45	BLACK-WHITE#45
12	BLACK-WHITE#12	29	BLACK-WHITE#29	46	BLACK-WHITE#46
13	BLACK-WHITE#13	30	BLACK-WHITE#30	47	BLACK-WHITE#47
14	BLACK-WHITE#14	31	BLACK-WHITE#31	48	BLACK-WHITE#48
15	BLACK-WHITE#15	32	BLACK-WHITE#32	49	BLACK-WHITE#49
16	BLACK-WHITE#16	33	BLACK-WHITE#33	50	BLACK-WHITE#50
17	BLACK-WHITE#17	34	BLACK-WHITE#34		
c) Pair				2/Cond Cabled Together	
(1) Twists:				4.8 Twists/foot (min)	
Individually Applied:					
d) Shield:				Foil Free Alum/Mylar Tape, 25% Overlap, Min.	
(1) Foil Direction				Foil Facing In	
(2) Drain Wire				18 (7/.0152) AWG Tinned Copper	
2) Component 2				1 X 1 COND	
a) Conductor				22 (7/30) AWG Bare Copper	0.030
b) Insulation				0.016" Wall, Nom. PVC	0.062
(1) Color(s)					
Cond	Color	Cond	Color	Cond	Color
1	ORANGE				
3) Cable Assembly				51 Components Cabled	
a) Twists:				0.6 Twists/foot (min)	
b) Orientation:				Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap				Clear Mylar Tape, 25% Overlap, Min.	
4) Shield:				Alum/Mylar Tape, 25% Overlap, Min.	
a) Foil Direction				Foil Facing In	
b) Drain Wire				18 (7/.0152) AWG Tinned Copper	

Physical & Mechanical Properties	
1) Temperature Range	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	2682 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	
(For Engineering purposes only)	
1) Voltage Rating	300 V _{RMS}
2) Component 1	
a) Mutual Capacitance	62 pF/ft @1 kHz, Nominal
b) Ground Capacitance	112 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	37 Ω
d) Inductance	0.17 μH/ft, Nominal
e) Conductor DCR	4.2 Ω/1000ft @20°C, Nominal
f) Component Shield DCR	6.1 Ω/1000ft @20°C, Nominal
g) OA Shield DCR	3.7 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	107 pF/ft @1 kHz, Nominal
b) Inductance	0.044 μH/ft, Nominal
c) Conductor DCR	15.4 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	3.7 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	48 x 26 x 18 Continuous length
b) 500 FT	48 x 26 x 18 Continuous length
c) 100 FT	48 x 26 x 18 Continuous length
d) Bulk(Made-to-order)	
	<i>[Spool dimensions may vary slightly]</i>

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M9746500

M9746500, RoHS-Compliant Commencing With 1/1/2006 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

Substance

Lead
Mercury
Cadmium
Hexavalent Chromium
Polybrominated Biphenyls (PBB)
Polybrominated Diphenyl Ethers (PBDE) ,
Including Deca-BDE
Bis(2-ethylhexyl) phthalate (DEHP)
Butyl benzyl phthalate (BBP)
Dibutyl phthalate (DBP)
Diisobutyl phthalate (DIBP)

Maximum Control Value

0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)
0.01% by weight (100 ppm)
0.1% by weight (1000 ppm)
0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire:

Dave Watson, Director of Engineering 8/7/2025

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